

REMARKS

Claims 8-15 are now present in this application, with original claims 1-7 being cancelled without prejudice or disclaimer of the subject matter contained therein. Claim 8 is the sole remaining independent claim in connection with the present application.

Drawing Objections

The Examiner objects to the drawings because, except for elements 12-14, none of the elements are labeled. Accordingly, Applicants submit drawing corrections to each of Figures 1-3. Approval of these drawing corrections, which include labeling of various elements, is respectfully requested. Upon receiving approval, Applicants will implement these drawing changes into new Formal Drawings. Thus, approval of the drawing corrections and withdrawal of the drawing objection are respectfully requested.

Specification

The Examiner objects to the disclosure because of minor informalities; namely, redundant lines 1-2 appear on page 3 of the present specification. Applicants delete the aforementioned portion of the specification and correct other minor informalities. Accordingly, withdrawal of the Examiner's objection to the specification is respectfully requested.

Claim Objections

The Examiner objects to claim 1 for minor informalities. This objection has been rendered moot in view of the cancellation of claim 1 without prejudice or disclaimer of the subject matter contained therein. Accordingly, withdrawal of the Examiner's rejection is respectfully requested.

Claim Rejections Under 35 U.S.C. §112, first paragraph

The Examiner rejects claims 1-7 under 35 U.S.C. §112, first paragraph. While Applicants do not necessarily agree with this rejection, claims 1-7 have been cancelled and have been replaced by new claims 8-15. New claims 8-15 are in strict compliance with 35 U.S.C. §112, first paragraph. Accordingly, withdrawal of the Examiner's rejection is respectfully requested.

Prior Art Rejections

The Examiner rejects claims 1-7 under 35 U.S.C. §103 as being unpatentable over Kramer et al. (U.S. Patent No. 6,466,539, hereinafter the Kramer '539 Patent) in view of Weber et al. (U.S. Patent No. 5,673,389, hereinafter the Weber '389 Patent). Although Applicants do not necessarily agree with this rejection, this rejection has been rendered moot in view of the cancellation of claims 1-7 without prejudice or disclaimer of the subject matter contained therein. Accordingly, withdrawal of this rejection is respectfully requested.

New Claims

New claims 8-15 have been added by the present Amendment. These claims are believed to be allowable over the prior art of record for at least the following reasons.

Claim 1 is directed to a method for transmitting data between a fail safe computer and a plurality of input/output modules via a bus control unit. The claim includes, among other features, transmitting, via the bus control unit, a first multi-bit message including at least one first check bit and at least one first load bit. At least such a feature (as claimed in claim 8) is not taught or suggested by the prior art of record, as discussed in detail below.

The Kramer '539 Patent

The Kramer '539 Patent is directed to a type of method for transferring data between a computer and a plurality of modules via a bus control unit. It is not explicitly described in the Kramer '539 Patent that the bus control unit addresses the input/output modules. According to column 6, lines 34-41 of the Kramer '539 Patent, a multi-bit message is a special digital message compared by the recipient with respect to identity or predetermined status information. Thus, the transmitted message either includes two mutually identical parts, or it must be a known bit pattern. The Kramer '539 Patent permits only one check to be carried out by two bus units arranged at the bus ends (see Abstract). An expansion to other units that are not arranged at the bus ends is not possible in the Kramer '539 Patent.

Accordingly, Applicants respectfully submit that the Kramer '539 Patent, taken alone or in combination with the Weber '389 Patent, fails to teach or suggest at least

transmitting a multi-bit message including at least one first check bit and at least one first load bit. It is important that the multi-bit message of claim 1 contains both the check bit and at least one useful bit. Thus, as the Kramer '539 Patent includes only check messages, they do not contain other useful information such as at least one first load bit as is required by claim 8 of the present application.

The Weber '389 Patent

With regard to the Weber '389 Patent, the Weber '389 Patent shows forcing a check bit or check bits to become more dynamic, but does not contain any further disclosure. In particular, the Weber '389 Patent does not show that the check bit is transmitted together with any useful bits in a multi-bit message, as required by claim 8 of the present application. Thus, even assuming *arguendo* that the Weber '389 Patent could be combined with the Kramer '539 Patent, which Applicants do not admit, at least such a feature as claimed in independent claim 8 of the present application, is not taught or suggested by the alleged combination of references.

Accordingly, the method in connection with the present application is clearly patentable over the prior art of record, taken either singularly or in combination. The method of the present application can include various advantages, including the fact that it can be used individually for each bus unit, where such an action is necessary. The units further do not have to be arranged at the ends of the bus system. In addition, the check information is always transmitted together with at least one useful bit such as at least one first load bit, so that it can be checked and determined that each individual data transmission is orderly or should be orderly. Accordingly, allowance of each of claims 8-15 in connection with present application is earnestly solicited.

The Articulated Motivation is in Error

Moreover, Applicants respectfully submit that the Examiner has not provided proper motivation for combining the teachings of the Kramer '539 Patent with that of the Weber '389 Patent. The Examiner has merely utilized his own opinion, in hindsight, that it "would have been obvious to a person of ordinary skill in the art at the time the invention was made for Kramer et al.'s system to recognize the faults taught by Weber et al." The Examiner does not even state why it would be obvious, but merely states that, in his opinion, it would be obvious. This is not proper motivation and without such motivation, a *prima facie* case of obviousness has not been established by the Examiner.

Evidence of a suggestion, teaching or motivation to combine may flow from prior art references themselves, the knowledge of one of ordinary skill in the art, or in some cases from the nature of the problem to be solved. See *In Re Dembiczak*, 50 USPQ2D 1614 (Fed. Cir. 1999). Regardless of the source, however, the Examiner is still required to provide some evidence of this motivation which must be clear and particular. Broad conclusory statements regarding the teachings of multiple references, standing alone, are not evidence. The Examiner is not entitled to look at Applicants' invention, in hindsight, and glean motivation from Applicants' own invention. See *Dembiczak* at 1617.

Further, to make a proper combination of references, the Examiner must provide evidence as to why one of ordinary skill in the art would have been motivated to select and combine the referenced teachings. No such evidence has been provided by the Examiner. Instead, the Examiner apparently relies on common knowledge or common

sense of a person of ordinary skill in the art, but this is not a proper standard for reaching the conclusion of obviousness without any specific hint or suggestion of this in a particular reference. See *In Re Sang Lee* 61 USPQ2D 1430 (Fed. Cir. 2002).

Somewhat similarly, if the Examiner is relying on personal knowledge to support a finding of what is known in the art, the Examiner **must provide** an affidavit or declaration setting forth the specific factual statements and explanation to support the finding. See 37 C.F.R. §1.104(d)(2) and MPEP 2144.03(c). Accordingly, Applicants respectfully challenge the Examiner's use of personal knowledge and respectfully require the Examiner to withdraw the rejection or provide an affidavit or declaration as set forth above if the rejection is to be maintained and applied to new claims 8-15 in connection with the present application.

CONCLUSION

In view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of new claims 8-15 in connection with the present application is earnestly solicited.

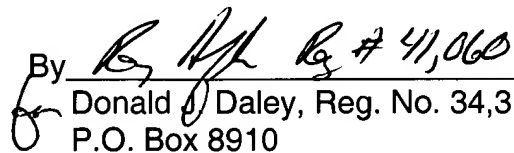
Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Donald J. Daley at the telephone number of the undersigned below.

In the event this Response does not place the present application in condition for allowance, Applicants request the Examiner to contact the undersigned at (703) 668-8000 to schedule a personal interview.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY & PIERCE, P.L.C.

By  # 41,060
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DJD/HRH/psy/bof

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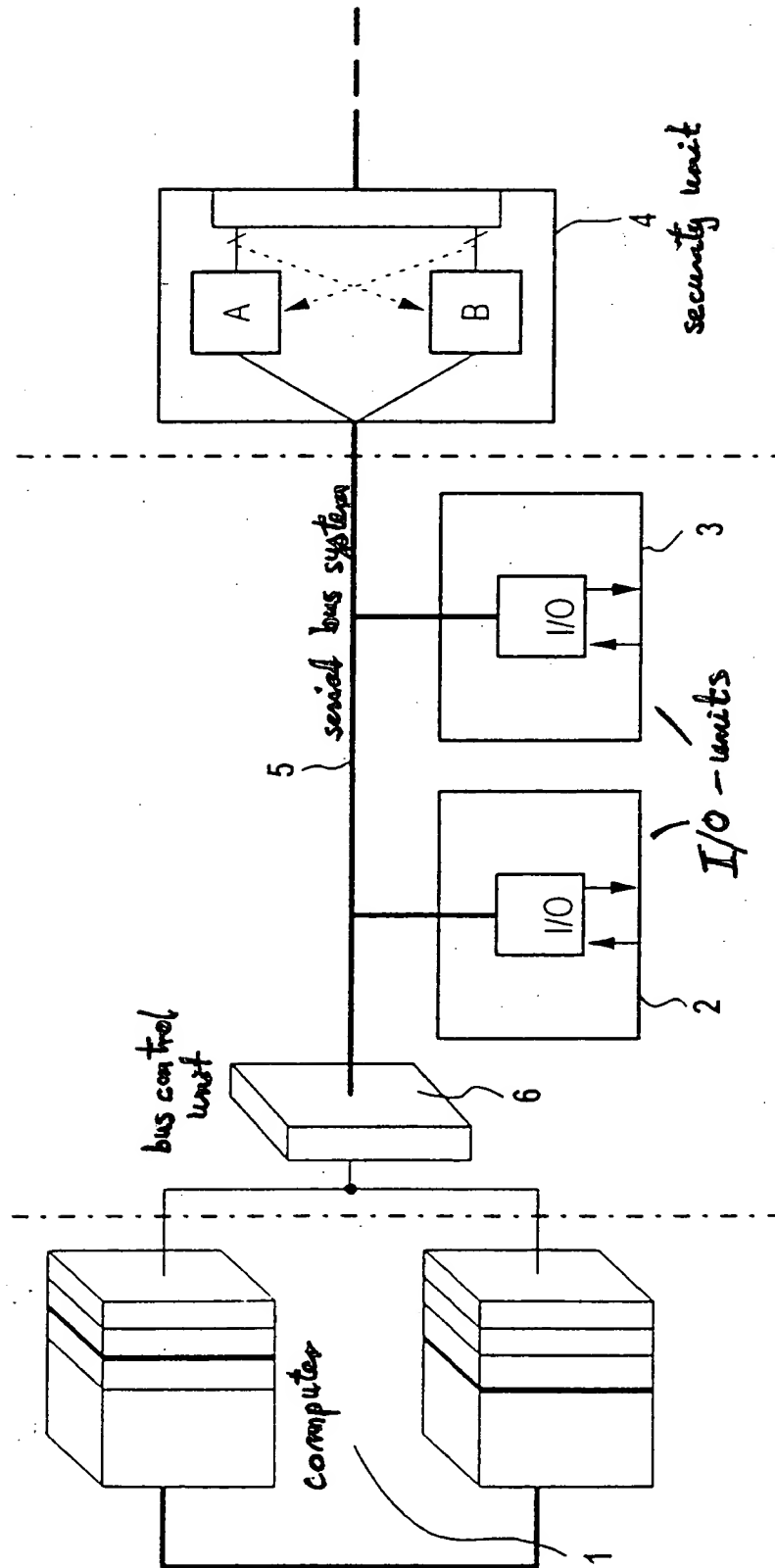
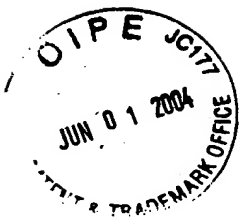


FIG 1

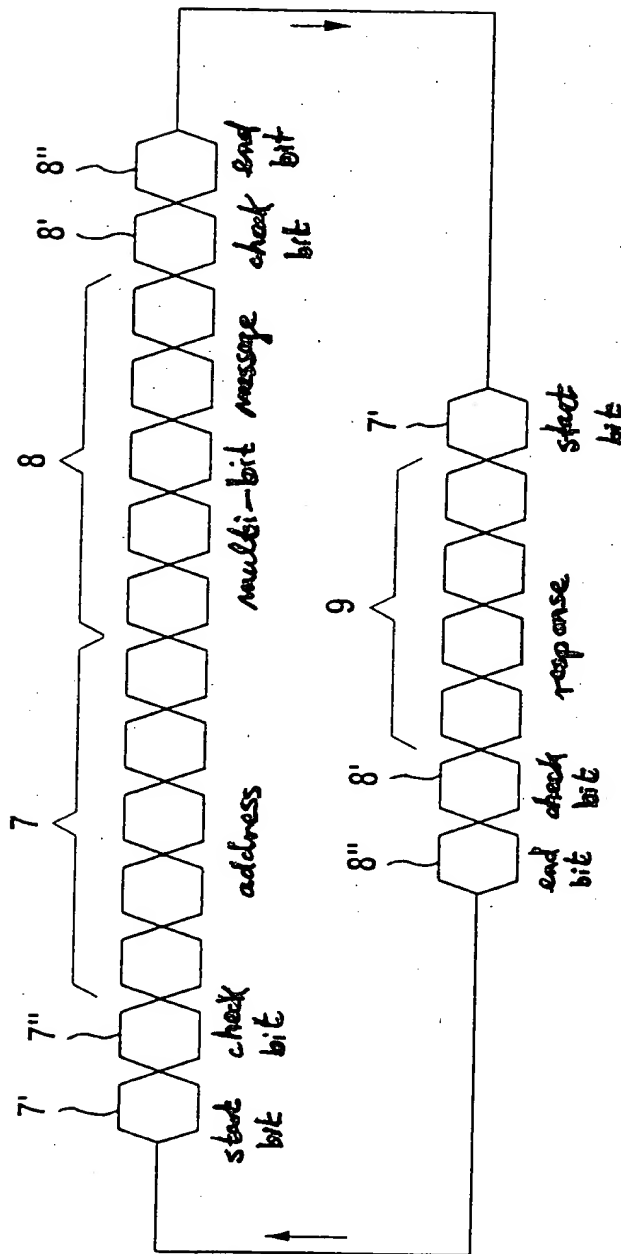


FIG 2



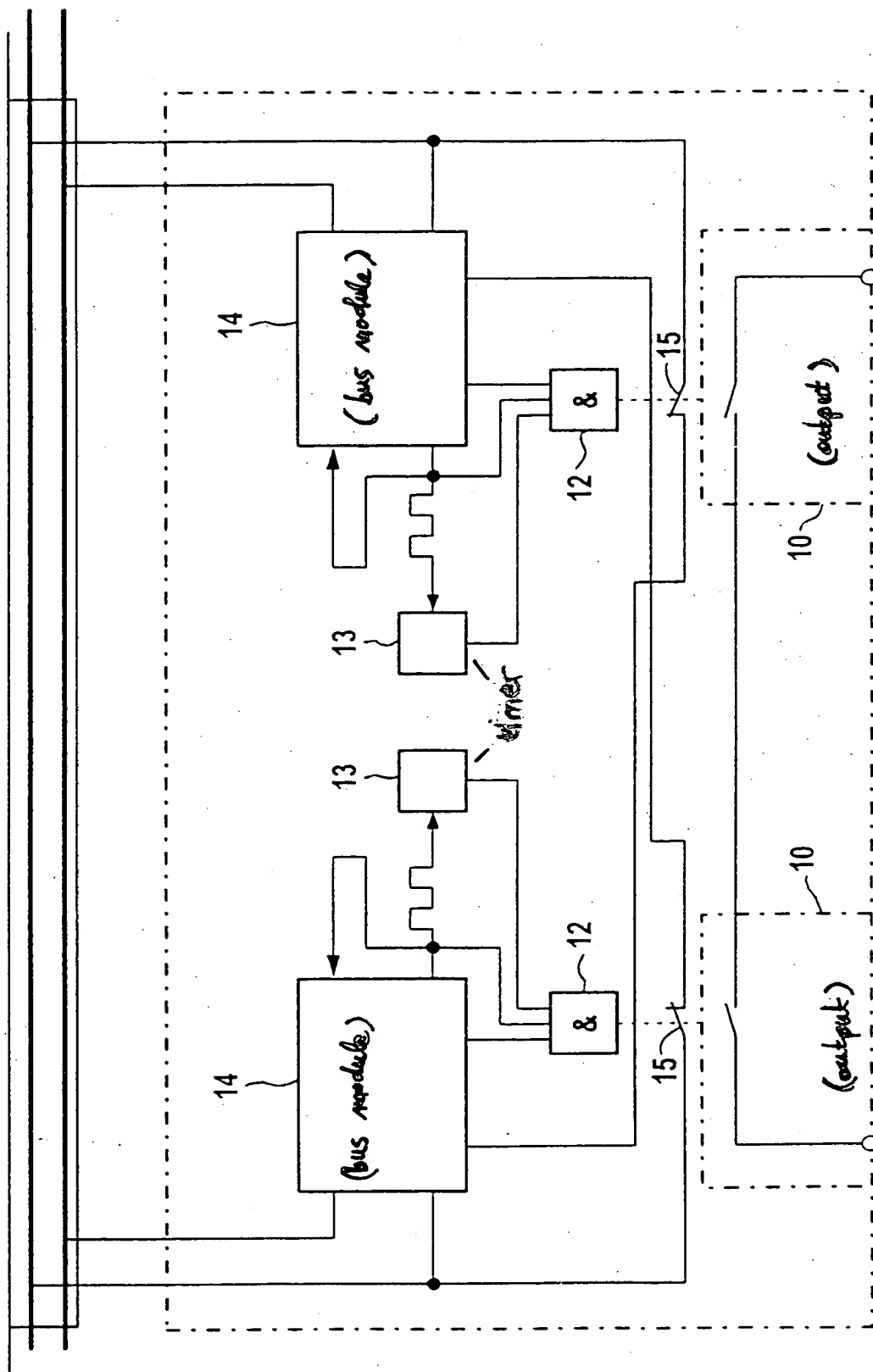
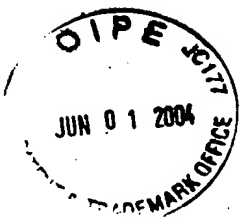


FIG 3